

Appln No. 10/646,972
Amendment dated October 10, 2006
Reply to Office Action dated April 17, 2006

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Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

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to
enter
10/17/06
1. (Cancelled)
 2. (Original) A method for casting a vaned diffuser (101) of a type used in a turbocharger for receiving high velocity air from a compressor wheel and supplying compressed air to an internal combustion engine, said vaned diffuser consisting mainly of a non-ferrous metal or alloy having a melting point of less than about 700°C, and said diffuser comprising an upper surface (105) and a plurality of vanes (113) radially disposed on said upper surface, the method comprising: (a) providing a male metallic template (201) comprising at least the upper surface of said diffuser (105) and further comprising a central hub (205) having an axis (207) approximately perpendicular to said upper surface; (b) casting a female plaster mold corresponding to said male metallic template by contacting said template with a plaster slurry within a suitable frame and permitting said slurry to harden; (c) separating the female plaster mold from the male metallic template by pulling along said axis (303); (d) filling said female plaster mold with a molten non-ferrous metal or alloy having a melting point of less than about 700°C; (e) cooling said mold to form a raw vaned diffuser casting (407); (f) separating the raw vaned diffuser casting from the female plaster mold by pulling along said axis (403); and (g) finish machining the raw vaned diffuser casting (407) to form the vaned diffuser (101).
 3. (Previously Presented) The method according to claim 2, in which said vaned diffuser consists mainly of aluminum or an aluminum alloy.